

NEW SPECIES OF APHODIUS AND MALACHIUS  
FROM CALIFORNIA

(Coleoptera)

BY R. E. BARRETT

*Saticoy, California*

**Aphodius vandykei** Barrett, n. sp.

Oblong, convex, black, shining, elytra black with intervals 2 to 5 and part of 6 yellow. Head entirely black, moderately convex, without trace of tubercles, surface rather finely closely punctate; clypeus feebly emarginate, the angles broadly rounded, sides arcuate, genæ moderately prominent, not as obtuse as in *cruentatus*; antenna brownish, club piceous. Thorax one and one-half times as wide as long, slightly narrower in front, sides feebly arcuate, hind angles distinct but obtuse, base arcuate, basal marginal line entire and more distinct than in *cruentatus*; disk convex, punctuation fine and dense slightly denser and finer at the sides. Scutellum small, black. Elytra at base not quite as wide as thorax, humeri distinct, with a small acute tubercle; striæ moderately deep, rather finely punctate, the striæ red where the intervals are yellow, intervals very slightly convex, punctuation fine and sparse, the first or sutural interval black, intervals 2 to 5 and part of 6 yellow except the apical one-eighth which is usually black or dark brown, the intervals from 6 to the side black. Mesosternum not carinate between the coxæ. Metasternum sparsely evenly punctate. Abdomen indistinctly punctate. Anterior tibiæ smooth in front, tridentate externally, finely crenate above the upper external tooth, piceous, first tarsal segment as long as the second, piceous. Middle tibiæ and tarsi piceous. Posterior femur rather densely punctate, black, tibiæ with unequal spinules, piceous, the first tarsal segment distinctly longer than the next three, piceous. Length, 4.5 to 6.0 mm.; breadth, 2.25 to 3.0 mm.

Holotype, No. 2984, in the Museum of the California Academy of Sciences. Numerous paratypes in my own collection. All were taken by me from nests of the wood rat, *Neotoma*, in the East Fork of Santa Paula Canyon (2500 feet elevation), Ventura County, California, January 26, 1931.<sup>1</sup>

A triangular black spot on the elytra is noticeable on many specimens, the base of the triangle being at the base of the elytra. This black spot is due to the transparency of the elytra

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<sup>1</sup> A number of specimens of the same species were taken by me and my students from the flotsam in a reservoir below the Sequoia National Park during May, 1929.—Edwin C. Van Dyke.

and the manner in which the wings are folded. Specimens preserved in alcohol are noticeably darkened. No sexual differences are noticed in the series at hand.

By Horn's Monograph this species runs to *terminalis* and *cruentatus* in Group I-d. It may readily be separated from *terminalis* by the small acute tubercle on the humeri, the first tarsal segment of the posterior legs being longer than the next three, the yellowish markings on the elytra, and by being in general larger. From *cruentatus* it may best be separated by color, smaller size, lack of tubercles on the head, and shape of the humeri.

This is the fourth *Aphodius* from *Neotoma* nests, *neotomæ* Fall, *davisi* Fall, and *sparsus* Lec. having been previously described from this habitat.

I take pleasure in naming this species after Dr. E. C. Van Dyke.

#### ***Malachius californicus* Barrett, n. sp.**

Moderately elongate, parallel or slightly wider posteriorly, from above metallic blue bordering on green. Head with two frontal and one small vertical impression, finely punctate, shining metallic bluish green, antenna eleven-segmented, black; male—segments 1 and 2 cylindrical, 3 triangular twice as long as the second, 4 to 10 pectinate, branch on segment 4 one-half as long as branch on segment 6, branch on segment 5 equal in length to branch on segment 10, branches on segments 6 to 9 equal in length; female—segments 1 and 2 cylindrical, segments 3 to 10 serrate; undersurface of the distal half of the first segment and the undersurface of the second segment yellow in both sexes. Prothorax distinctly wider than long, glabrous, shining, broadly rounded, uniformly colored. Elytra shining, scabrous, apex not appendiculate in either sex. Undersurface of body and legs dark green bordering on black, pubescence fine, yellow. Length, 3.5 to 4.0 mm.; breadth, 1.5 to 2.0 mm.

Holotype, male, No. 2985, in the Museum of the California Academy of Sciences. Allotype, female, and one paratype in my collection. Described from three specimens collected by myself in Marin County, California, April 18, 1926.

In Horn's Synopsis of the Malachiidæ of the United States this species runs to the group in which the male antenna is pectinate and the apex of the elytra are not appendiculate. It may readily be separated from *mixtus* and *ulkei* by its uniform metallic bluish-green color.